

Wellhead Electric Company (“Wellhead”) Comments on ISO’s Local Capacity Requirements Potential Reduction Study within the 2018-2019 TPP  
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Wellhead Electric Company (“Wellhead”) appreciates this opportunity to comment on the CAISO’s Local Capacity Requirements Potential Reduction Study that will be part of the CAISO’s 2018-2019 Transmission Planning Process Special Studies. As a co-developer of the world’s first energy-storage gas hybrid, the Electric Gas Turbine (EGT) Wellhead is a leader in a non-transmission alternative generation technology that can provide both a cost-effective solution to reliability concerns and flexible generation.

Wellhead understands that the objective of this special study is to consider transmission and non-transmission alternatives to reduce the minimum capacity required in CAISO defined local capacity areas as determined under the CAISO’s annual LCR studies. As discussed on the April 18, 2018 stakeholder call, the CAISO will ultimately identify needed resource characteristics to meet an identified need in each studied area such that the minimum local capacity required within a given local area (or sub-area) can be significantly reduced or eliminated entirely.

Wellhead appreciates the CAISO’s willingness to consider resource replacement as a potential means to achieve reduced/eliminated local capacity area requirements. It is Wellhead’s understanding that preferred resources with the desired attributes, as determined by the CAISO through this study process, will be considered a potential solution to meeting the identified need. Based on the presentation materials and corresponding Final 2018-2019 TPP Study Plan it is unclear if the ISO will consider hybridized gas-fired resources, if it meets the resource characteristics, as a “preferred resource” and thus a potential solution. Wellhead asks that the ISO confirm energy-storage augmented gas-fired resources, such as hybridized gas-fired resources, will be considered a potential solution so long as they meet the desired resource attributes. This seems to be the case in the Final 2018-2019 TPP Study Plan as indicated by the inclusion of Grapeland and Center Peaker plants, both of which have been hybridized with energy storage, in the list of fast-tracked battery energy storage system projects (table 4.8-4). However, it was not made clear in the April 18, 2018 presentation, motivating Wellhead to seek this clarification from the CAISO.

Lastly, Wellhead understands that the CAISO will be looking at resource replacement, but believes the market and the CAISO would benefit from expanding resource replacement to include augmented/hybridized resources as a way to meet the need as well. Based on Wellhead’s involvement in developing the world’s first hybrid EGT, Wellhead believes that augmenting/hybridizing gas-fired resources with energy storage – as opposed to simply replacing them with traditional stand-alone energy storage resources - could be a superior solution to other preferred resources; hybridized resources will be able to provide a myriad of benefits to the ISO markets in terms of

meeting reliability needs and GHG policy objectives, and providing economic benefits but at a greatly reduced gas-burn which can be used to quickly and efficiently unburden disadvantaged communities.

The market will be able to economically position the highly flexible hybridized resources in such a way as to significantly reduce minimum load burden which in turn leads to reduced renewable curtailment, overbuild, and GHG emissions. These resources will be in a GHG-free ready-state position, i.e. providing spinning reserves without fuel burn, while putting no electricity onto the grid and able to immediately and quickly meet fast ramping needs. The hybrid technology eliminates a resource's minimum load, which will significantly reduce renewable curtailment the CAISO currently faces during the belly-of-the-duck hours as a result of the minimum load burden. In addition, eliminating the minimum load burden also has the effect of reducing GHG emissions that come from positioning several gas-fired resources at a non-zero minimum load operating point. Lastly, augmenting existing gas-fired resources with energy-storage hybrid resources will not only be a more cost-effective solution than other transmission alternatives but may be more cost-effective than stand-alone energy storage preferred resource projects now, while also providing an organic path for the future conversion of these energy storage hybrid facilities to stand-alone energy storage as the grid evolves away from gas.

Wellhead looks forward to working with the CAISO in its efforts to reducing LCR needs by considering non-transmission alternative solutions such as energy-storage hybridized gas-fired resources.